We claim:

10

15

20

30

## 1. A formulation comprising

- 5 (A) at least one pigment in particulate form that has been treated according to a process which comprises steps of:
  - (a) mixing pigment in particulate form with at least one nonionic surfaceactive substance,
  - (b) dispersing the thus obtainable mixture of pigment in particulate form and nonionic surface-active substance in an aqueous medium,
  - (c) addition polymerizing at least one first monomer or addition copolymerizing a first mixture of comonomers in the presence of a dispersion according to b) to form water-insoluble polymer or copolymer on the surface of the pigments in particulate form,
  - (d) adding at least one second comonomer or a second mixture of comonomers and addition copolymerizing,
     and
  - (B) at least one radiation-curable component.
  - The formulation according to claim 1 wherein said radiation-curable component
    (B) is at least one molecule having at least two ethylenically unsaturated double bonds.
- 25 3. The formulation according to claim 1 wherein step d) adds at least one comonomer which serves as a photoinitiator.
  - 4. The formulation according to any of claims 1 to 3 wherein step d) produces a polymer or copolymer having a glass transition temperature  $T_g$  of above 0°C.
  - 5. The formulation according to any of claims 1 to 4 wherein the pigments in particulate form are organic pigments.
- 6. The formulation according to any of claims 1 to 5 wherein at least one monomer in step c) is a vinyl aromatic compound or is a compound of the general formula I

$$R_{\frac{7}{2}}^{2}$$
  $O$   $OR^{3}$   $R^{1}$ 

where

 $R^1$  is selected from hydrogen, branched or unbranched  $C_1$ - $C_{10}$ -alkyl,  $R^2$  is selected from hydrogen, branched or unbranched  $C_1$ - $C_{10}$ -alkyl,  $R^3$  is selected from branched or unbranched  $C_4$ - $C_{10}$ -alkyl.

5

- 7. The formulation according to any of claims 1 to 6 wherein said first mixture of comonomers in step c) is a mixture of at least one vinyl aromatic compound and at least one compound of the general formula I.
- 10 8. The formulation according to any of claims 1 to 7 wherein R<sup>1</sup> and R<sup>2</sup> are both hydrogen in one compound of the general formula I.
  - The formulation according to any of claims 1 to 8 wherein step d) adds a monomer of the general formula II

15

$$R_{Z_{\overline{A}}}^{5}$$
  $OR^{6}$ 

where

 $R^4$  is selected from hydrogen, branched or unbranched  $C_1$ - $C_{10}$ -alkyl,  $R^5$  is selected from hydrogen, branched or unbranched  $C_1$ - $C_{10}$ -alkyl,  $R^6$  is selected from branched or unbranched  $C_1$ - $C_{10}$ -alkyl.

25

35

20

- 10. The formulation according to any of claims 1 to 9 wherein said second mixture of comonomers comprises at least one monomer of the general formula II.
- 11. The formulation according to any of claims 1 to 10 wherein R<sup>4</sup> is hydrogen or methyl and R<sup>5</sup> is hydrogen in at least one compound of the general formula II.
- 12. The formulation according to either of claims 10 and 11 wherein said second mixture of comonomers which is added in step d) includes at least one comonomer selected from vinyl aromatic compound and a compound of the general formula I.
  - 13. The formulation according to any of claims 1 to 12, further comprising

(C) at least one plasticizer.

14. The use of the formulation according to at least one of claims 1 to 13 for coloration of substrates.

5

20

25

30

- 15. A process for coloration of substrates, which comprises substrates being contacted with at least one formulation according to any of claims 1 to 13 and thereafter exposed to actinic radiation.
- 16. The process according to claim 15 wherein curing is effected by the action of actinic radiation.
- 17. A colored substrate obtainable according to a process according to either of claims 15 and 16.
  - 18. An ink for the ink jet process, comprising at least one formulation according to any of claims 1 to 13.
- 15 19. A print paste for textile printing, comprising at least one formulation according to any of claims 1 to 13.
  - 20. A pigment in particulate form which have been treated according to a process which comprises steps of:
    - (a) mixing one or more pigments in particulate form with at least one nonionic surface-active substance,
    - (b) dispersing the thus obtainable mixture of pigment in particulate form and nonionic surface-active substance in an aqueous medium,
    - (c) addition polymerizing at least one first monomer or addition copolymerizing a first mixture of comonomers in the presence of a dispersion according to b) to form water-insoluble polymer or copolymer on the surface of the pigments in particulate form,
    - (d) adding a second mixture of comonomers and addition copolymerizing,

wherein said second mixture of comonomers comprises at least one comonomer which bears moieties useful for radiative curing.